CASE REPORT JSLS

Acute Abdomen in a Case With Noncommunicating Rudimentary Horn and Unicornuate Uterus

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ABSTRACT

Unicornuate uterus with a rudimentary horn is the rarest congenital anatomic anomaly of the female genital system, causing many obstetrical and gynecologic complications. The frequency of this pathology is approximately 1/100 000. A rudimentary horn usually develops following insufficient development of mullerian ducts. These patients present with dysmenorrhea, dyspareunia, and chronic pelvic pain because of endometriosis and rarely with acute abdominal symptoms following distention and torsion of the noncommunicating rudimentary horn. The case of a patient referred for acute abdomen after distention of a noncommunicating rudimentary horn is presented herein.

Key Words: Unicornuate uterus, Noncommunicating rudimentary horn.

INTRODUCTION

Abnormal fusion of mullerian ducts or insufficient absorption of the uterine septum results from anatomical changes in the female genital system.[1] The least frequent form of these changes is the unicornuate uterus with a rudimentary horn. The frequency of congenital uterine anomalies in a fertile female population is about 1/200 to 1/600, whereas the frequency of rudimentary horn is 1/100 000. This anatomical abnormality may lead to many obstetrical and gynecologic complications. Besides gynecologic complications, such as endometriosis, primary infertility, and hematometra, anomalies of the urinary system and obstetrical problems, such as malpresentation, habitual abortus, and premature birth, can occur.[1]

CASE REPORT

The patient is a 27-year-old, nulligravid, woman admitted to the emergency service of the Inonu University Medical Faculty with acute abdomen and hospitalized in the obstetrics and gynecology clinic. Her age at menarche was 13, and she had severe dysmenorrhea since age 14. Her menstrual cycle was 28 days, and her menstrual period was about 5 to 7 days with a normal amount of bleeding. Since marriage, 3 years earlier, she and her husband had been using the coitus interruptus method of contraception. Gynecologic examination revealed a normal vagina and cervix. Her uterus was antevert and anteflex with a normal size. She had an approximately 3x4-cm palpable mobile, tender, hard mass in the right adnexal region.

Rebound and defense symptoms were present during abdominal examination. Blood pressure was 90/60 mm Hg, with a heart rate of 108 per minute. Laboratory values were as follows: hemoglobin 10.5 g/dL, hematocrit 37%, white blood cell count 12 000 per mm^3, platelet count 105 000 per mm^3. Her β-hCG level was not detectable. Ultrasonographic evaluation revealed a 36x39-mm smooth contoured, homogenous solid mass in her right adnexal region. Minimal fluid was observed in the pouch of Douglas. The patient underwent an emergency laparoscopic operation. Exploratory findings during laparoscopy were a left uterine deviation with normal anatomical localiza-

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tion and normal size of the left tube. The left round ligament arose from the left uterine cornual region; however, the right round ligament arose from the rudimentary horn. The noncommunicating rudimentary horn, approximately 45 mm in size, suspended by a fibrous band to the uterus was seen on the right side **(Figure 1).** The right uterine tube arose from the superior portion of the rudimentary horn and had a normal anatomic shape and size. Both ovaries were normal in shape and size. Minimal blood collection was observed in the pouch of Douglas. No endometriotic lesions were found in the pelvis. The rudimentary horn was excised laparoscopically using scissors and bipolar cautery. Because a morcellator was unavailable, the excised rudimentary horn was put into a glove and removed through a 3-cm incision on a suprapubic trocar insertion site. Pathological examination of the specimen was reported as myometrium neighboring endometrial tissue. The patient was discharged on the first postoperative day. Evaluation of the urinary tract with radiographic methods was planned postoperatively, but the patient conceived 2 months after the operation, and urinary tract evaluation was postponed.

DISCUSSION

Unilateral hypoplasia of the mullerian duct is a congenital anomaly resulting from a rudimentary horn. Urinary tract abnormalities are commonly associated with mullerian anomalies. This developmental anomaly is classified according to its relation with the uterine cavity. The pathology is classified into 4 groups by the American Society of Reproductive Medicine (ASRM) as unicornuate uterus with communicating rudimentary horn, unicornuate uterus with noncommunicating rudimentary horn, isolated unicornuate uterus, and noncavitated unicornuate uterus with noncommunicating rudimentary horn.[2] Generally, such abnormalities result in an ectopic pregnancy (22%) and spontaneous abortion (16%).[1] Diagnosis of this pathology can be made incidentally during gynecologic examination or during surgical intervention because of acute abdomen as seen in our case. Possible causes of abdominal pain in these patients are the distention of the uterus because of blood accumulation in the noncommunicating cavity of the rudimentary horn, hematometra, pyometra, and torsion.[1] Another problem with the noncommunicating rudimentary horn is rudimentary horn pregnancy. Since myometrial tissue is thin in a rudimentary uterus, uterine rupture is seen frequently in rudimentary horn pregnancies.[1] The presence of gestation in a noncommunicating rudimentary uterus can be explained by transperitoneal migration of sperm. Although this is uncommon, these pregnancies may lead to serious complications.

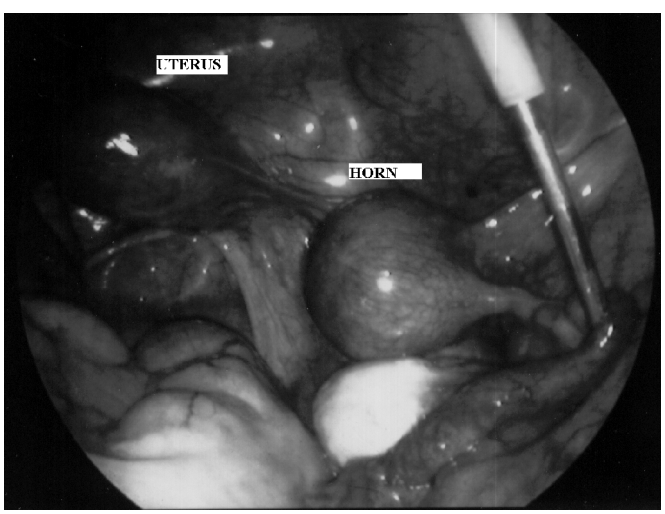

Figure 1. Noncommunicating rudimentary horn, 45 mm, suspended by a fibrous band to the uterus visible on the right side.

Another cause of abdominal pain in these women is endometriosis.[3] Endometriosis seen in these cases supports the retrograde menstruation theory. Retrograde menstruation from the ipsilateral tube results from endometriosis. The pain of endometriosis in these cases is usually serious and can cause severe dysmenorrhea, chronic pelvic pain, and dyspareunia.[3]

Surgical removal of the noncommunicating horn is commonly performed if it is thought to contain functional endometrium, to prevent endometriosis and pregnancy complications. In our case, removal of the horn could have resulted in relief of dysmenorrhea complaints, but we are unable to observe it because the patient conceived after the operation. A review of the literature shows that operative laparoscopy can be used for removal of a rudimentary horn successfully and minimally invasively. Especially for the younger women in the fertile period as in our case, the rudimentary horn must be excised because the intervention will prevent possible endometriosis development. Thus, besides complications, such as torsion, distention, and acute abdomen, possible infertility is avoided.

References:

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